



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/749,893	12/29/2000	Robert Paliska	09991-014001	6685

26171 7590 07/24/2002

FISH & RICHARDSON P.C.
1425 K STREET, N.W.
11TH FLOOR
WASHINGTON, DC 20005-3500

EXAMINER

NGHIEM, MICHAEL P

ART UNIT

PAPER NUMBER

2861

DATE MAILED: 07/24/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/749,893	PALIFKA ET AL.
	Examiner	Art Unit
	Michael P Nghiem	2861

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 20 May 2002.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-7, 12-14, 18-26, 28-31, 36-39 and 43-46 is/are rejected.
- 7) Claim(s) 8-11, 15-17, 27, 32-35 and 40-42 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on 20 May 2002 is: a) approved b) disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The Amendment filed May 20, 2002 has been acknowledged.

Information Disclosure Statement

1. The "AR" reference filed May 15, 2001 has not been considered because it lacks pertinent information such as date of publication.

Specification

2. The disclosure is objected to because of the following informalities:
reference number "110" (Fig. 4) is not specified.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

Claims 1-7, 12-14, 18-26, 28-31, 36-39, and 43-46 are rejected under 35 U.S.C. 102(e) as being anticipated by Kishima (US 6,109,737).

Kishima discloses all the claimed features of the invention including:

- An ink jet printing module and method of manufacturing same comprising:
 - contacting a first component (32) of an ink jet printing module (19) having a surface with a patterned thermoplastic bonding component (50) (Fig. 3); and
 - heating the surface to bond the surface to the thermoplastic bonding component (Abstract, lines 4-6);
 - comprising applying pressure to the surface and the thermoplastic bonding component (Abstract, lines 4-6);
 - the surface and the thermoplastic bonding component are substantially free of liquid adhesive (since 50 has adhesive property, column 16, lines 27-29);
 - contacting a second component (31) of the ink jet printing module having a surface with the thermoplastic bonding component; and
 - heating the surface to bond the surface to the thermoplastic bonding component (column 17, lines 32-36);
 - the first component of the ink jet printing module is a piezoelectric element (33 (of 32));

- the thermoplastic bonding component includes an electrode pattern (column 16, lines 54-59);
 - the thermoplastic bonding component includes an adhesive polyimide (column 18, lines 24-27);
 - the ink jet printing module includes an ink channel (42), the piezoelectric element being positioned to subject ink within the channel to jetting pressure (41), and electrical contacts (of electrodes) arranged for activation of the piezoelectric element;
 - the ink jet printing module includes a series of channels (Figs. 3, 4);
 - the module includes an orifice plate (30) and the method further comprises adhering a protector strip (251) over the orifice plate;
 - the orifice plate includes a thermoplastic bonding material adjacent to the protector strip (column 38, lines 50-55);
 - each of said channels is covered by a single piezoelectric element (Figs. 3, 4).

Allowable Subject Matter

4. Claims 8-11, 15-17, 27, 32-35, and 40-42 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Reasons For Allowance

5. The combination and method as claimed wherein the piezoelectric element is lead zirconium titanate (claims 8, 32) or the thermoplastic bonding component has a thickness between 1 micron and 150 microns (claims 9, 33) or the thermoplastic bonding component is placed over the ink channel and includes a filter (claims 15, 27, 40) is not disclosed, suggested, or made obvious by the prior arts of record.

Response to Arguments

6. Applicant's arguments filed May 20, 2002 have been fully considered but they are not persuasive.

With respect to the 35 USC 102 rejection, Applicants argue that Kishima does not disclose a patterned thermoplastic bonding component.

Examiner's position is that Kishima discloses a patterned thermoplastic bonding component (50). (50) of Kishima is patterned in the sense that it has a specific form/shape and has a design including (51) over its surface (50a).

Applicants further argue that Kishima does not disclose adhering a protector strip over an orifice plate.

Art Unit: 2861

Examiner's position is that Kishima discloses adhering a protector strip (251) over an orifice plate (Fig. 25).

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Nghiem whose telephone number is (703) 306-3445. The examiner can normally be reached on M-H from 6:30AM – 5:00 PM.

Art Unit: 2861

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Hilten can be reached at (703) 308-0719. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7724 for regular communications and (703) 308-5841 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-

0956.



**MICHAEL NGHIEM
PRIMARY EXAMINER**

Michael Nghiem

July 19, 2002